



Chlorinated phenols

Analysis of phenols to EPA 8040

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with an Agilent CP-Sil 5 CB-MS column separates 21 chlorinated phenols according to EPA 8040 in 20 minutes.



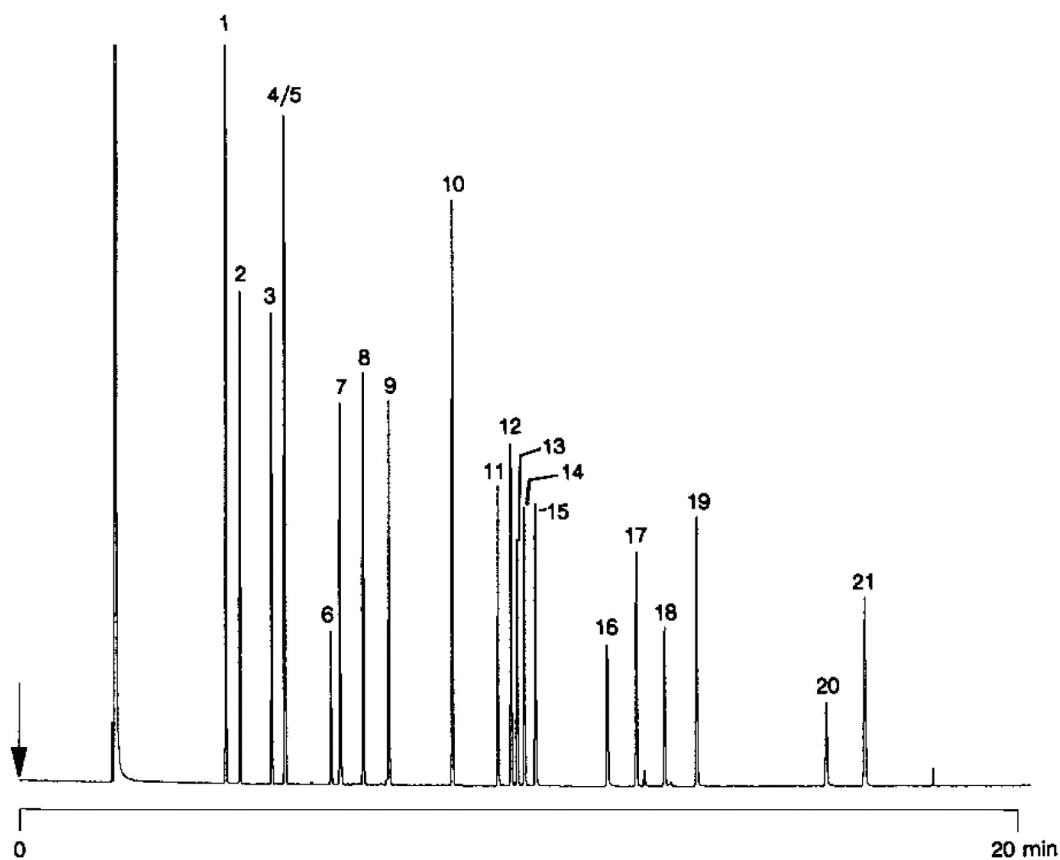
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Conditions

Technique : GC-capillary
Column : Agilent CP-Sil 5 CB-MS, 0.25 mm x 50 m fused silica
WCOT CP-Sil 5 CB-MS (df = 0.25 µm)
(Part no. CP7843)
Temperature : 80 °C → 200 °C, 5 °C/min
Carrier Gas : H₂, 150 kPa (1.5 bar, 21 psi)
Injector : Split, 100 mL/min
T = 250 °C
Detector : FID
T = 300 °C

Peak identification

1. phenol
2. 2-chlorophenol
3. o-cresol
4. m-cresol
5. p-cresol
6. 2-nitrophenol
7. 2,4-dimethylphenol
8. 2,4-dichlorophenol
9. 2,6-dichlorophenol
10. 4-chloro-3-methylphenol
11. 2,3,5-trichlorophenol
12. 2,4,6-trichlorophenol
13. 2,4,5-trichlorophenol
14. 2,3,4-trichlorophenol
15. 2,3,6-trichlorophenol
16. 4-nitrophenol
17. 2,4-dinitrophenol
18. 2,3,5,6-tetrachlorophenol
19. 2-methyl-4,6-dinitrophenol
20. pentachlorophenol
21. 2-sec-butyl-4,6-dinitrophenol



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